Agenda – Council – June 23, 2022

Report – Standing Policy Committee on Infrastructure Renewal and Public Works – June 9, 2022

Item No. 7 Speed Limit – St. Vital Bridge, Dunkirk Drive, and Osborne Street

STANDING COMMITTEE RECOMMENDATION:

On June 9, 2022, the Standing Policy Committee on Infrastructure Renewal and Public Works concurred in the recommendation of the Winnipeg Public Service and submitted the following to Council:

1. That the speed limit on Osborne Street and Dunkirk Drive between Clare Avenue and the projection of Glenview Avenue be reduced from 70 km/h to 60 km/h, and that this speed limit change be implemented as part of the St. Vital Bridge Rehabilitation Project just prior to the re-opening of the bridge to normal traffic conditions (anticipated to be in the fall of 2024).

2. That the City Solicitor and Director of Legal Services be instructed to prepare an amendment to Speed Limit By-law No. 63/2019 in accordance with Recommendation 1 and bring same directly to Council for enactment.

3. That the Proper Officers of the City be authorized to do all things necessary to implement the intent of the foregoing.

Report – Standing Policy Committee on Infrastructure Renewal and Public Works – June 9, 2022

DECISION MAKING HISTORY:

EXECUTIVE POLICY COMMITTEE RECOMMENDATION:

On June 15, 2022, the Executive Policy Committee concurred in the recommendation of the Standing Policy Committee on Infrastructure Renewal and Public Works and submitted the matter to Council.

STANDING COMMITTEE RECOMMENDATION:

On June 9, 2022, the Standing Policy Committee on Infrastructure Renewal and Public Works concurred in the recommendation of the Winnipeg Public Service and submitted the matter to the Executive Policy Committee and Council.

On May 4, 2022, the Standing Policy Committee on Infrastructure Renewal and Public Works further laid the matter over to its June 9, 2022 meeting.

On April 6, 2022, the Standing Policy Committee on Infrastructure Renewal and Public Works laid the matter over to its meeting on May 4, 2022.

David Grant submitted a communication dated April 5, 2022, with respect to the matter.

ADMINISTRATIVE REPORT

Title: Speed Limit – St. Vital Bridge, Dunkirk Drive, and Osborne Street

Critical Path: Standing Policy Committee on Infrastructure Renewal and Public Works – Executive Policy Committee – Council

AUTHORIZATION

Author	Department Head	CFO	CAO
D. Patman, P. Eng.	J. Berezowsky	C. Kloepfer	M. Jack

EXECUTIVE SUMMARY

The Public Service recommends that, as part of the St. Vital Bridge Rehabilitation Project, the speed limit on Osborne Street and Dunkirk Drive between Clare Avenue and the projection of Glenview Avenue be reduced from 70 km/h to 60 km/h. The speed limit change will be implemented just prior to the bridge being re-opened to normal traffic conditions (anticipated to be in the fall of 2024).

The St. Vital Bridge Rehabilitation Project is identified in the 2021 Capital Budget with a budget of $46,874,000 funded between 2021 and 2024. In addition, roadworks associated with the project, in the amount of $5,700,000, are identified in the Regional and Local Street Renewal Program for 2024. The total approved project budget is $52,574,000.

The St. Vital Bridge (comprised of twin structures) provides a crossing of the Red River connecting Osborne Street and Dunkirk Drive. The overall bridge superstructure and the approaching roadways are in poor condition, and the bridge requires widening to accommodate current geometric design standards and enhance active transportation connections. The roadworks limits for the project are from Jubilee Avenue to Fermor Avenue and include reconstruction of the access ramps to Kingston Row.

A preliminary design study for the project is currently underway. The existing bridges are substandard for current geometric design standards for a 70 km/h posted speed limit. The preliminary design has identified several technical challenges and substantial cost implications with designing the rehabilitated bridge structures to meet current geometric design standards for a 70 km/h posted speed limit and also incorporate enhanced active transportation connections.

Modifying the bridges and associated roadworks to current standards in order to accommodate a 70 km/h posted speed would require significant bridge widening as well as improvements to roadworks which would increase the project budget requirement by $13,000,000.

For a 60 km/h posted speed, the bridge widening would be limited to improvements for active transportation, and many technical challenges with the associated roadworks are eliminated. This alternative can be accommodated within the existing identified budget.

Traffic calming measures, such as tree plantings, narrower lanes, and geometric changes to the Kingston Row ramp connections, will be introduced as part of the preliminary design to provide

a roadway environment consistent with motorist expectations for a 60 km/h speed limit. The change in the posted speed limit along the 1.7 km corridor length would likely result in a difference of approximately eight seconds travel time for the average motorist.

RECOMMENDATIONS

1. That the speed limit on Osborne Street and Dunkirk Drive between Clare Avenue and the projection of Glenview Avenue be reduced from 70 km/h to 60 km/h, and that this speed limit change be implemented as part of the St. Vital Bridge Rehabilitation Project just prior to the re-opening of the bridge to normal traffic conditions (anticipated to be in the fall of 2024).

2. That the City Solicitor and Director of Legal Services be instructed to prepare an amendment to Speed Limit By-law No. 63/2019 in accordance with Recommendation 1 and bring same directly to Council for enactment.

3. That the Proper Officers of the City be authorized to do all things necessary to implement the intent of the foregoing.

REASON FOR THE REPORT

The recommendations will require an amendment to the Speed Limit By-law No. 63/2019 that must be approved by Council. Although the By-law does not need to be amended at this time, the Public Service is requesting Council provide advance approval for this amendment before the St. Vital Bridge Rehabilitation preliminary design is completed.

IMPLICATIONS OF THE RECOMMENDATIONS

Not modifying the speed limit to 60 km/h will result in a total project cost increase of approximately $13,000,000 and would result in several technical challenges for the St. Vital Bridge Rehabilitation project.

If the Recommendations are approved, Schedule A to the Speed Limit By-law 63/2019 will be amended just prior to substantial performance of the St. Vital Bridge Rehabilitation Project and re-opening of the bridge to normal traffic conditions. Construction is anticipated to occur in 2023 and 2024.

The cost to supply and install new speed limit signs is $1,260 and will be funded through the St. Vital Bridge Rehabilitation Project budget.

HISTORY/DISCUSSION

BACKGROUND INFORMATION

The St. Vital Bridge (comprised of twin structures) provides a crossing of the Red River connecting Osborne Street and Dunkirk Drive. The overall bridge superstructure and the approaching roadways are in poor condition, and the bridge requires widening to accommodate current geometric design standards and enhance active transportation connections.

The St. Vital Bridge Rehabilitation Project is identified in the 2021 Capital Budget with a budget of $46,874,000 funded between 2021 and 2024. In addition, roadworks associated with the project, in the amount of $5,700,000, are identified in the Regional and Local Street Renewal Program for 2024. The total project budget is $52,574,000.

The St. Vital Bridge Rehabilitation Project commenced in 2021 with a preliminary design study for major rehabilitation of the St. Vital Bridge structures and approach roadways. Bridge improvements include active transportation facilities on the bridge and enhanced connections to the existing active transportation networks on both sides of the bridge.

Figure 1, below, illustrates the current posted speed limit on the approaching segments of Osborne Street and Dunkirk Drive. The Osborne Street / Dunkirk Drive corridor has posted speed changes from 50 – 70 – 60 km/h in the southbound direction and 60 – 70 – 50 km/h in the northbound direction. There is an approximately 1.7 km segment of Osborne Street and Dunkirk Drive with a posted speed limit of 70 km/h.

At the January 13, 2022, meeting of the Standing Policy Committee on Infrastructure Renewal and Public Works, the Public Service was directed to review the speed limit on Fermor Avenue between Dunkirk Drive and St. Anne's Road. This review is underway and the recommendations will be presented as a separate report.

PRELIMINARY DESIGN IMPLICATIONS

The existing bridge is substandard for current geometric design standards for a 70 km/h posted speed limit. Preliminary design has identified several technical challenges and substantial cost implications with designing the rehabilitated bridge structures to meet current geometric design standards for a 70 km/h posted speed limit while also incorporating enhanced active transportation connections. Designing for a 60 km/h posted speed limit results in numerous benefits including the following:

- Utilizing a 60 km/h speed limit allows for narrower lane widths and a narrower overall bridge structure. The wider overall bridge structure for a 70 km/h speed limit would require changes to the bridge substructure as well as additional superstructure support elements under the deck. Further, the wider overall bridge structure would not provide the required clearance between structures for standard bridge inspection techniques.
- Utilizing a 60 km/h speed limit minimizes changes to the current roadway approach alignment on both the north and south side of the bridge structures.
- Utilizing a 60 km/h speed limit allows for simplification of the Kingston Row access ramps on the south side of the bridge without significant acceleration/deceleration lane requirements.
- Utilizing a 60 km/h speed limit eliminates the need for dedicated bus bays on the south side of the bridge.
- Due to the above, maintaining the existing 70 km/h speed limit results in a significant total project cost increase of approximately $13,000,000 over the current project budget.

Geometric design for a 60 km/h posted speed can be accommodated within the existing project budget.

As best as possible, roadway systems should promote consistent speeds and minimize changes in posted speed limits. It is not desirable for only a short segment of this corridor to have a 70 km/h speed limit and it is recommended the entire 1.7 km segment have a consistent speed limit.

TRAVEL TIME IMPACTS

The impacts to travel time (not including traffic signal delay) are summarized in Table 1. Existing operating speeds with the 70 km/h speed limit were collected in July 2021 and show an average speed of approximately 65 km/h. It is anticipated that if the posted speed limit is reduced to 60 km/h and appropriate design changes are implemented then the average speed would be approximately 60 km/h. The change in these speeds along the 1.7 km corridor length would result in an increase of eight seconds travel time for the average motorist.

Table 1: Travel Time Estimates

Segment length	Posted speed	Average speed	Travel time
1.7 km	70 km/h	65 km/h	94 seconds
1.7 km	60 km/h	60 km/h	102 seconds
		Difference	**8 seconds**

CONCLUSION

If the recommendations of this report are approved, the preliminary design for the St. Vital Bridge will be completed for a posted speed limit of 60 km/h and, once the St. Vital Bridge Rehabilitation project is completed, the speed limit on the St. Vital Bridge and approaching segments of Osborne Street and Dunkirk Drive will be modified from 70 km/h to 60 km/h. Schedule A to the Speed Limit By-law 63/2019 will be amended just prior to substantial performance of the St. Vital Bridge Rehabilitation Project and re-opening of the bridge to normal traffic conditions.

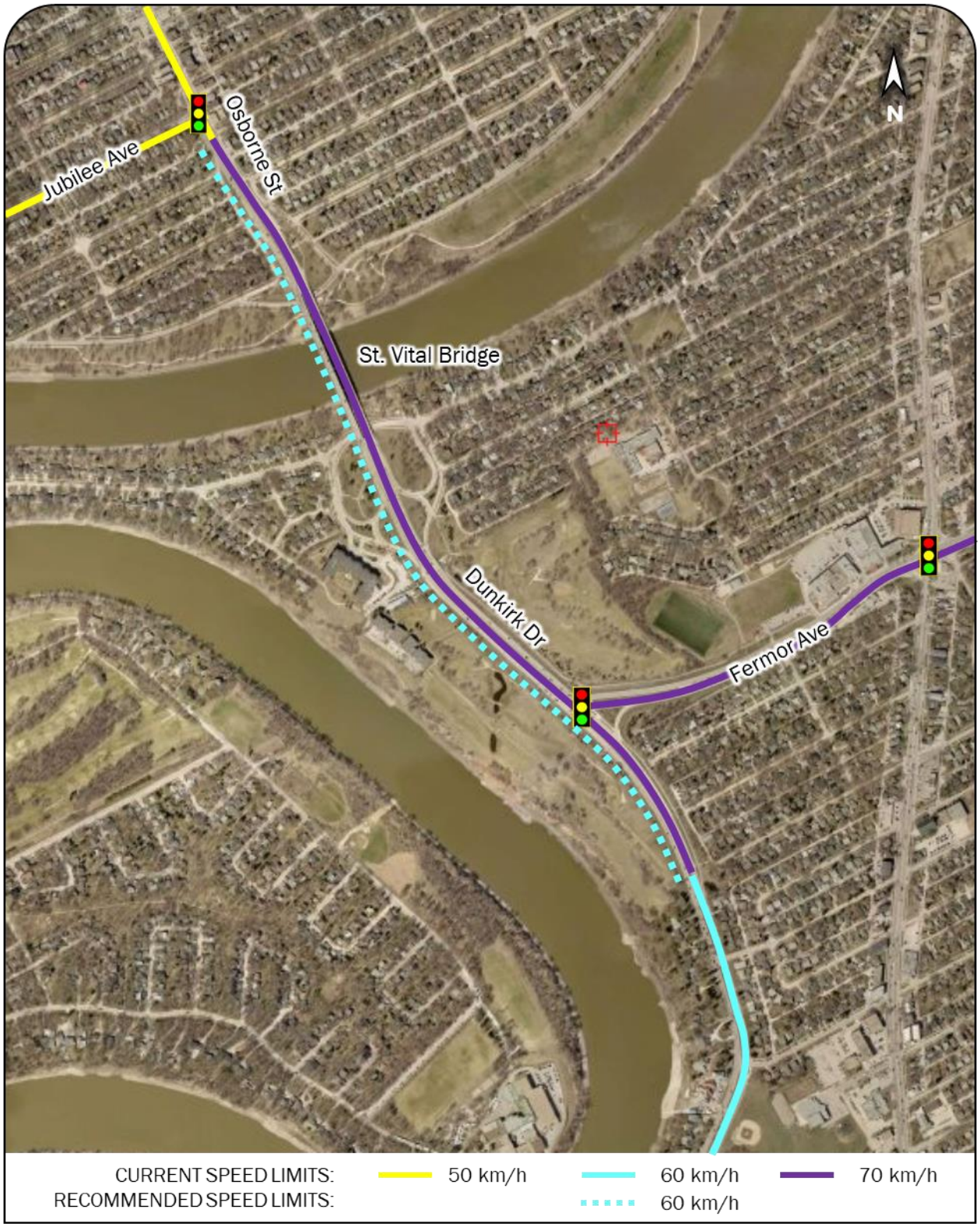

Figure 1: Study Area

FINANCIAL IMPACT

Financial Impact Statement

Date: February 24, 2022

Project Name:

Speed Limit – St. Vital Bridge, Dunkirk Drive, and Osborne Street

First Year of Program **2022**

	2022	2023	2024	2025	2026
Capital					
Capital Expenditures Required	$ 1,260	$ -	$ -	$ -	$ -
Less: Existing Budgeted Costs	1,260	-	-	-	-
Additional Capital Budget Required	$ -	$ -	$ -	$ -	$ -
Funding Sources:					
Debt - Internal	$ -	$ -	$ -	$ -	$ -
Debt - External	-	-	-	-	-
Grants (Enter Description Here)	-	-	-	-	-
Reserves, Equity, Surplus	-	-	-	-	-
Other - Enter Description Here	-	-	-	-	-
Total Funding	$ -	$ -	$ -	$ -	$ -
Total Additional Capital Budget Required	$ -				
Total Additional Debt Required	$ -				
Current Expenditures/Revenues					
Direct Costs	$ -	$ -	$ -	$ -	$ -
Less: Incremental Revenue/Recovery	60	-	-	-	-
Net Cost/(Benefit)	$ (60)	$ -	$ -	$ -	$ -
Less: Existing Budget Amounts	(60)	-	-	-	-
Net Budget Adjustment Required	$ -	$ -	$ -	$ -	$ -

Additional Comments: Total expenditures represent the cost to supply and install speed limit signs $1,200.00 plus $60 administration and overhead costs to be funded as part of the St. Vital Bridge Rehabilitation project 1805002721. Revenue/Recovery represents estimated Departmental overheads and Corporate administration costs.

"signed by J. Ruby, CPA, CA"

J. Ruby CPA, CA
Manager of Finance and Administration

CONSULTATION

This Report has been prepared in consultation with:

- Legal Services

OURWINNIPEG POLICY ALIGNMENT

The Sustainable Transportation Direction Strategy developed as part of OurWinnipeg forms the policy framework for the Transportation Master Plan (TMP). Sustainable Transportation identified a vision and five Key Strategic Goals which are critical to achieving a balanced and sustainable transportation system for Winnipeg. These goals form the basis for the TMP and the directions and strategies contained within it:

1. A transportation system that is dynamically integrated with land use;
2. A transportation system that supports active, accessible and healthy lifestyle options;
3. A safe, efficient and equitable transportation system for people, goods and services;
4. Transportation infrastructure that is well maintained; and
5. A transportation system that is financially sustainable.

The recommendations within this report are consistent with the Key Strategic Goals.

WINNIPEG CLIMATE ACTION PLAN ALIGNMENT

There is a linkage between making Winnipeg's transportation network safer and more efficient with Key Directions 3.1 "Increase Use and Efficiency of Public Transit Systems", and 3.4 "Increase Active Transportation Rates".

WINNIPEG POVERTY REDUCTION STRATEGY ALIGNMENT

N/A

SUBMITTED BY

Department: Public Works
Division: Transportation and Engineering
Prepared by: K. Patmore, M.Sc., P.Eng., Regional Traffic Engineer
D. Muhurdarevic, P.Eng., Bridge Projects Engineer
Date: February 24, 2022